

Appl. No. 09/890,920
 Atty. Docket No. 7942
 Amdt. dated 10/14/2004
 Reply to Office Action of 07/14/2004
 Customer No. 27752

AMENDMENTS TO THE CLAIMS

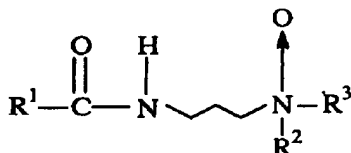
This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-10. (Canceled)

Claim 11. (Currently amended): A process for making a liquid dishwashing detergent composition wherein said final composition comprises anionic surfactant, amphoteric surfactant, diamine, and substantially no residual hydrogen peroxide, said process comprising the steps of:

- (a) combining an amine oxide containing residual hydrogen peroxide with an antioxidant to form a detergent premix wherein said premix contains less than 0.02% of hydrogen peroxide; and
- (b) adding an amylase enzyme to said detergent premix to form a detergent composition

wherein said amine oxide has the formula:



wherein R_1 is $\text{C}_8\text{-C}_{18}$ alkyl, 2-hydroxyalkyl, 3-hydroxyalkyl, 3-alkoxy-2-hydroxypropyl and mixtures thereof; R_2 and R_3 are each methyl, ethyl, propyl, isopropyl, 2-hydroxyethyl, 2-hydroxypropyl and mixtures thereof; and

~~wherein said composition comprises less than 5% by weight of antioxidant~~

further wherein said anionic surfactant, amphoteric surfactant and diamine is present in a molar ratio of anionic surfactant to amphoteric surfactant to diamine of from about 27 to 8 to 1 to about 11 to 3 to 1.

Claim 12. (Previously Presented): A process according to Claim 11 wherein one or more surfactants are combined with said amine oxide and antioxidant in step (a);

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further wherein said process comprises one or more adjunct ingredients, said adjunct ingredients being selected from the group consisting of anionic surfactants, amphoteric surfactants, nonionic surfactants, and mixtures thereof.

Claim 13. (Previously Presented): A process according to Claim 11 further comprising the step of adding a chelant, said chelant having a calcium ion binding constant, $\log K$, of less than 3.

Claim 14. (Canceled)

Claim 15. (Currently amended): A process for making a liquid dishwashing detergent composition wherein said final composition comprises anionic surfactant, amphoteric surfactant, diamine, and substantially no residual hydrogen peroxide, said process comprising the steps of:

- (a) combining an amine oxide containing residual hydrogen peroxide with an antioxidant to form a detergent premix wherein said premix contains less than 0.02% of hydrogen peroxide;
- (b) adding to said premix one or more adjunct ingredients to form an adjunct ingredient comprising detergent premix; and
- (c) adding an amylase enzyme to said adjunct ingredient comprising detergent premix to form a detergent composition;

~~wherein said composition comprises less than 5% by weight of antioxidant~~

wherein said anionic surfactant, amphoteric surfactant and diamine is present in a molar ratio of anionic surfactant to amphoteric surfactant to diamine of from about 27 to 8 to 1 to about 11 to 3 to 1.

Claim 16. (Previously Presented): A process according to Claim 15 wherein one or more surfactants are combined with said amine oxide and antioxidant in step (a), said adjunct ingredients selected from the group consisting of anionic surfactants, amphoteric surfactants, nonionic surfactants, and mixtures thereof.

Claim 17. (Previously Presented): A process according to claim 15 further comprising the step of adding a chelant, said chelant having a calcium ion binding constant, $\log K$, of less than 3.

Claim 18. (Previously Presented): A process according to Claim 15, wherein said adjunct ingredients from step (b) are selected from the group consisting of soil release polymers, polymeric dispersants, polysaccharides, abrasives, bactericides and other antimicrobials, tarnish inhibitors, builders, enzymes, dyes, buffers, antifungal or mildew control agents, insect repellants,

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perfumes, hydrotropes, thickeners, processing aids, brighteners, anti-corrosive aids, stabilizers, chelants, and mixtures thereof.

Claim 19. (Previously Presented): A process according to Claim 15 wherein said detergent composition comprises a sufficient amount of a buffer such that said composition during use has a pH of greater than about 7.

Claim 20. (Previously Presented): A process according to Claim 19 comprising from about 0.1% to about 15% by weight, of a buffer.

Claim 21. (Previously Presented): A process according to Claim 20 comprising from 1% to 10% by weight, of a buffer.

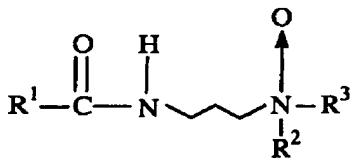
Claim 22. (Previously Presented): A process according to Claim 21 comprising from 2% to 8% by weight, of a buffer.

Claim 23. (Previously Presented): A process according to Claim 15 wherein said detergent premix further comprises a buffering system, said system comprising:

- i) 0.5% by weight, of the final composition, of an amine selected from the group consisting of tri(hydroxymethyl) amino methane, 2-amino-2-ethyl-1,3 propanediol, 2-amino-2-methylpropanol, 2-amino-2-methyl-1,3-propanol, disodium glutamate, N-methyl diethanolamide, 1,3-diaminopropanol, N,N'-tetramethyl-1,3-diamino-2-propanol, N,N-bis(2-hydroxyethyl)glycine, N-tris(hydroxymethyl)methyl glycine, and mixtures thereof;
- ii) 0.75% by weight, of the final composition, of potassium carbonate; and
- iii) 1.75% by weight, of the final composition, of sodium carbonate.

Claim 24. (Previously Presented): A process according to Claim 15 wherein said detergent premix further comprises from about 0.5% to about 20% by weight, of a suds booster.

Claim 25. (Previously Presented): A process according to Claim 15 wherein said N-oxide surfactant has the formula:



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wherein R^1 is C_8 - C_{18} alkyl, 2-hydroxyalkyl, 3-hydroxyalkyl, 2-alkoxyl-2-hydroxypropyl, and mixtures thereof; R^2 and R^3 are each methyl, ethyl, propyl, isopropyl, 2-hydroxyethyl, 2-hydroxypropyl, and mixtures thereof.

Claim 26. (Currently amended): A composition according to Claim [[14]] 15 further comprising one or more enzyme selected from the group consisting of cellulases, hemicellulases, peroxidases, proteases, gluco-amylases, lipases, cutinases, pectinases, xylanases, reductases, oxidases, phenoloxidases, lipoxygenases, ligninases, pullulanases, tannases, pentosanases, malanases, β -glucanases, arabinosidases, and mixtures thereof.